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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,843	06/14/2001	Yong Rui	MCS-070-00	2837

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EXAMINER

ENG, GEORGE

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,843

Applicant(s)

RUI ET AL.

Examiner

George Eng

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action is in response to amendment filed 10/11/2002 (paper no. 3).

Claim Rejections - 35 USC § 112

2. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 28, the specification fails to clearly specify to transmit a low-resolution version of the omni-direction image to the viewer platform as recited in the claim such that the system is capable of transmitting only a high-resolution version of the selected portion to the viewer platform. Thus, claim 28 contains subject matter, which was not described in the specification.

3. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 25, it is unclear what is meant by visible physical movement and how the camera system requires no visible physical movement to capture the event participants.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 7-16 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Kannes (US PAT. 5,382,972).

Regarding claim 1, Kannes discloses a conferencing system as shown in figures 1-2 for capturing and viewing having event participants comprising a camera system (21-24) for providing an omni-directional image of an event and that simultaneously monitors the events participants (1-4) and film the event, a computer (68) for controlling and using the camera system to keep track of each of the monitored event participants simultaneously and broadcasting the event and a viewer platform, i.e., a remote module, in communication with the computer for allowing a viewer (5) to view the broadcasted event (col. 4 line 35 through col. 7 line 64).

Regarding claim 5, Kannes discloses the computer for allowing switching between of the omni-directional image of the event (col. 5 lines 35-43 and col. 10 lines 24-48).

Regarding claim 7, Kannes teaches the computer including an analysis module for finding and indexing the event participants (col. 5 line 25 through col. 6 line 21 and col. 10 lines 24-48)

Regarding claim 8, Kannes discloses a method for filming and recording an event having event participants and presenting the event to a viewer as shown in figures 1-2 comprising the

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steps of filming and recording the event using a camera system (21-24) to provide an omni-directional image that contains each of the event participants (col. 5 lines 8-12), determining a location of the event participants in the omni-directional image (col. 6 lines 22-48), providing user interface for allowing a choice being of which of the event participants in the omni-directional image to view, the choice being made by at least one of the viewer or a virtual director, and switching instantaneously between views of the event participants in the omni-directional in response to the choice (col. 5 line 56 through col. 6 line 21 and col. 8 lines 13-21).

Regarding claim 9, Kannes discloses to use a computer having computer executable instructions for performing an operation (col. 6 line 66 through col. 7 line 12 and col. 10 lines 24-48).

Regarding claims 10-13, Kannes teaches to store annotations associated with the event and synchronize these annotation with the event for allowing the viewer to select which of the annotation to store, wherein the annotation is being selected while the event is occurring (col. 11 line 10 through col. 13 line 36).

Regarding claims 14-15, Kannes teaches the location of the event participants in the omni-directional image being determined by using a speaker detection technique to determine which of the event speaker is speaking, and switching from one camera view to another camera view (col. 5 line 56 through col. 6 line 21).

Regarding claim 16, Kannes teaches to use a microphone arrays and sound source localization algorithms (col. 12 line 64 through col. 13 line 26 and col. 15 lines 40-68).

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Regarding claim 25, Kannes teaches each camera aiming at each individual conferee as shown in figure 1 (col. 5 lines 8-12) so that the camera system requires no physical movement to capture the event participant.

Regarding claims 26-27, Kannes teaches a controller panel, i.e., a user interface, on the viewer platform for allowing arbitrary number of viewers to view an arbitrary number of viewpoints of the broadcasted event such that instantaneous switching is supported for an infinite number of views that select arbitrary different viewpoints (col. 5 line 25 through col. 6 line 21 and col. 8 lines 13-37).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claims 2-4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kannes (US PAT. 5,382,972) in view of Martin et al. (US PAT. 5,877,801 hereinafter Martin)

Regarding claims 2-4, Kannes discloses the camera a system including a plurality of cameras (col. 5 lines 7-12). Kannes differs from the claimed invention in not specifically teaching the camera system including a camera having a wide-angle view of approximately 360 degrees field of view. However, Martin teaches to use a wide-angle lens in order to improve the field of view (col. 3 lines 40-50). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kannes in using the camera for capturing a wide-angle view, as per teaching of Martin, in order to improve the field of view.

Regarding claim 17, the limitations of the claim are rejected as the same reasons set forth in claims 2-4.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kannes (US PAT. 5,382,972) in view of St. Hilaire (US PAT. 5,790,182)

Regarding claim 6, Kannes differs from the claimed invention in not specifically teaching the camera system having a high resolution of approximately 1000 by 1000 pixels. However, St. Hilaire teaches a panoramic imaging system capable of providing images having approximately 1000 by 1000 pixels (col. 1 line 54 through col. 2 line 49). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kannes in using the camera system having a high resolution of approximately 1000 by 1000 pixels, as per teaching of St. Hilaire, in order to provide high resolution images.

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9. Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kannes (US PAT. 5,382,972) in view of Ono (US PAT. 6,133,941).

Regarding claim 18, Kannes discloses a method for displaying at least a portion of an omni-directional image capturing an event occurring within an event environment comprising filming and recording the event using a camera system (21-24) to provide an omni-directional image that contains each of the event participants (col. 5 lines 8-12), transmitting the omni-directional image from a computer (68) to a view platform, i.e., a remote module, using the viewer platform to allow a viewer (5) to select which portion of the omni-directional image the viewer would like to view, and switching instantaneously between views of the omni-directional image by presenting a desired portion of the omni-directional image as selected by the viewer (col. 4 line 35 through col. 7 line 34 and col. 8 lines 13-21). Kannes differs from the claimed invention in not specifically teaching to transmit the image from the computer to the remote module using a computer network. However, it is notoriously well known in the art of transmitting image using a computer network in order to improve the operability of a camera control system, for example see Ono (col. 4 lines 13-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kannes in transmitting the image from the computer to the remote module using a computer network, as per teaching of Ono, because it improves the operability.

Regarding claim 19, Kannes teaches the viewer selecting to view multiple portions of the omni-directional image (figure 2 and col. 8 lines 13-21).

Regarding claim 20, Kannes discloses the omni-directional image containing all event participants within the event environment (figures 1-2).

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Regarding claim 21, the limitations of the claim are rejected as the same reasons set forth in claim 18.

Regarding claims 22-23, Kannes discloses a switching module for allowing switching between of the omni-directional image of the event, wherein the switching module provides instantaneous switching between the multiple camera views (col. 5 lines 35-43 and col. 10 lines 24-48).

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kannes (US PAT. 5,382,972) in view of Ono (US PAT. 6,133,941) as applied in claim 21 above, and further in view of Bruno et al. (US PAT. 5,710,591) hereinafter Bruno).

Regarding claim 24, Kannes teaches to provide a control means for selecting images (col. 8 lines 13-21). The combination of Kannes and Ono differs from the claimed invention in not specifically teaching to provide negative switching that allows switching to a camera view of a person speaking before begins to speak. However, Bruno teaches such (col. 4 line 62 through col. 5 line 7). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Kannes and Ono in switching to a camera view of a person speaking before begins to speak, as per teaching of Bruno, because it makes user friendly for subsequent retrieval and processing.

11. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kannes (US PAT. 5,382,972).

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Regarding claim 28, Kannes teaches to transmit a plurality of image captured by cameras (21-24) to a remote module, i.e., a viewer platform, for displaying, wherein the remote module comprises control panel for manually selecting which portion of the images to view by the viewer or a virtual director module for automatically selecting which portion of the images displaying on the large picture region (col. 8 line 13 through col. 10 line 59). Note while the selected portion is displaying on the large picture region at the remote module. Thus, it would have been obvious to provide a high-resolution of the selected portion version in order to improve the image quality.

Response to Arguments

12. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, V.A., Sixth Floor (Receptionist).


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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tuesday to Friday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz, can be reached on (703) 305-4870. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

George Eng



Examiner

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